

## Emissions Inventory Help Sheet for Fuel Storage and Handling

Not applicable to bulk plants or terminals

### What Do I Need to Report?

This help sheet is for reporting emissions from fuel storage tanks with capacity of 250 to 15,000 gallons, not at a bulk plant or terminal. Use the **Evaporative Process Form**. Reportable fuels are gasoline, aviation gas and naphtha/JP-4. Do **NOT** report diesel fuel or jet A (jet kerosene). Volatile Organic Compounds (VOCs) are the air pollutants to be reported from fuel storage and handling.

### How Do I Fill Out the Evaporative Process Form?

- Line 1 – “Process Type/Description” should include information relevant to storage, handling and emission controls, such as: “Aviation fuel storage & handling using Stage I vapor recovery; 50% transferred to aircraft by tank truck.”
- Line 2 – Use one of the following Tier Codes:
  - 090212 Non-resale petroleum product storage
  - 090213 Resale petroleum product storage
- Column 6 – If Process IDs are not printed, provide a different Process ID number for each line used. Name the fuel in column 8 (Material Type). Use a separate line for each applicable emission factor.
- Column 9 – Enter annual usage of the fuel in gallons.
- Column 10 – The pollutant is **VOC**.
- Column 11 – Select the emission factor from information given below. In most cases each fuel uses one emission factor to report all emissions from loading, spillage, displacement, breathing, and vehicle refueling.

### What is Stage I and Stage II?

A Stage I vapor recovery system means fuel delivery trucks attach a vapor recovery hose to your storage tank whenever they fill your storage tank with fuel. Stage II describes systems that use the pump nozzle to recover vapors from the vehicle's tank.

### Gasoline Tank Emission Factors:

- Underground tank with both Stage I and Stage II vapor recovery = **0.003** lb of VOC per gallon of gas.
- Underground tank with only Stage I vapor recovery = **0.013** lb of VOC per gallon of gas
- Underground tank with NO Stage I or Stage II vapor recovery = **0.02** lb of VOC per gallon of gas
- Aboveground tanks = **0.04** lb of VOC per gallon of gas.

### Underground Aviation Fuel Tank Emission Factors:

The table below provides emission factors determined by the vapor recovery system used and whether a refueling truck is used to transfer fuel to aircraft.

Fuel	Vapor Recovery System	Fueling Aircraft from an On-Site Storage Tank via Tank Truck?	Emission Factor (lb / gallon)
Aviation Gasoline	Stage I	Yes	<b>0.019</b>
"	Stage I	No	<b>0.014</b>
"	None	Yes	<b>0.026</b>
"	None	No	<b>0.021</b>
Naphtha / JP-4	None	Yes	<b>0.008</b>
"	None	No	<b>0.0065</b>

**Reference:** EPA, 1997. Compilation of Air Pollutant Emission Factors: Transportation and Marketing of Petroleum Liquids. Vol. I, Section 5.2. Emission factors are derived from Tables 5.2-5 and 5.2-7 (1/95).

### Calculation of emissions:

Multiply the total gallons by the appropriate emission factor (column 9 × column 11) to determine the “Estimated Emissions” in lbs/yr (column 15).